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ABSTRACT

The Committee to Revise the 1959 Standards for College Libraries found that great differences existed among colleges in objectives, size, and program breadth, and that library standards should reflect those differences. Therefore, several higher education classification schemes were examined for their applicability to the committee's needs. Two United States Office of Education typologies and one from the American Council on Education were found to lack specificity. A Federal Interagency Committee on Education plan provided more detail and avoided the terms "university" and "college" which tend to blur definition. A more valuable plan for the purposes of analysis was that of the Carnegie Commission on Higher Education, which listed 18 types of institutions in five categories. Four Carnegie categories were found most appropriate to the committee's needs: comprehensive universities I and II and liberal arts colleges I and II. The difference between liberal arts colleges I and II was a selectivity factor which had a high correlation with the selectivity index of the Class and Birnbaum "Comparative Guide to American Colleges." (LS)

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Association of College and Research Libraries (ACRL) Ad Hoc Committee to Revise the 1959 Standards for College Libraries

Working Paper

TYPOLOGY OF INSTITUTIONS OF HIGHER EDUCATION

by

James W. Pirie

In the hierarchy of tasks attempted by the library profession, the setting of standards for resources, services, and performance has always ranked high. This fact is evident when we consider not only the very large amount of effort, time, and money that has gone into the task, but also the great interest in standards as they are promulgated, and the sometimes extreme reactions with which they are greeted by librarians and officials. One is almost tempted to coin a phrase by remarking that library standards are often the cause of much blood, sweat, and tears.

The present Committee, in considering its assignment to revise the 1959 Standards for College Libraries, has developed in discussion and thought a belief that its conclusions would be more valid and its recommendations more meaningful to individual institutions if an attempt were made to recognize the wide variety of institutions gathered together under the term "college", and to take into account the very great differences in their objectives, size, and program breadth in constructing appropriate standards.

That there are such differences is a significant characteristic of American collegiate education. In size they range in enrollment from small institutions with barely 100 students to giants of over 20,000. Their breadth of programs, understandably, appear to be in direct relation to the number

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of students - which affects, inevitable, the number and variety of courses and programs, and of course faculty number and strength. College objectives are equally wide-spread, with some institutions stressing academic brilliance and interest in the preparation of graduate students, while others with equally valid goals in mind for their students do not embrace to such an extent the high academic performance aim. Statistical material and interpretation on these points will be found in Mr. David Perkins paper.

It was in recognition of these existing real differences and their affect upon requirements for library resources and services that the Committee felt compelled to accept the thesis that standards should themselves reflect these demands.

The purpose of this paper is to investigate the various categories and classifications of institutions of higher education in the U.S. to determine their suitability as basis for our recommendations in setting up standards. It is intended to review the classification as developed and used by agencies of the U.S. government as well as others.

Until very recently the most common grouping used by the U.S. Office of Education included four basic categories:

1. Universities are institutions that -
   a. Give considerable stress to graduate instruction.
   b. Confer advanced degrees as well as bachelor's degrees in a variety of liberal arts fields.
   c. Have at least two professional schools that are not exclusively technological.

2. Four-year institutions with graduate students that, although not classifiable as universities, have students in graduate or post-baccalaureate programs (including first-professional students).
3. Four-year institutions without graduate students are other institutions with four-year programs.
4. Two-year institutions with programs of at least 2 but less than 4 years of college-level work. These include some trade-technical and business schools as well as community or junior colleges.[1]

The foregoing is, of course, a very broad classification scheme that does not appear to offer much help to the work of our Committee. Its language is, perhaps purposely, vague and capable of much self-interpretation, as for example, the definition of "universities". Such institutions it is said, "give considerable stress to graduate instructions" which may be confusing. What, we may ask, does "considerable" mean?

The inclusion of first-year professional programs in the category labelled Four-Year Institutions with Graduate Programs creates a very broad group that would include some rather small institutions that offer master's degrees along with large and complex institutions with programs including law, medicine, and the like. Obviously, for our purposes this is too large a grouping.

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1. U.S. National Center for Educational Statistics. Library Statistics of Colleges and Universities. Fall 1969 Analytic Report. (Washington, U.S. Government Printing Office, 1971), p. 37.

Category 3, Four-Year Institutions without Graduate students is perhaps the only truly discrete group in the lot, and would be useful for us to retain as long as we created other classifications - particularly for the four-year colleges with a modicum of lower graduate offerings.

Another Office of Education publication uses a yet more general grouping, as follows:

1. Universities (without clarifying definition)
2. Other institutions, as,
   a. Liberal Arts Colleges
   b. Teachers Colleges
   c. Technological Colleges
   d. Theological or religious schools
   e. Other independently organized professional schools.
3. Two-year institutions.[2]

Many of the remarks on the first example given apply equally to this categorization. And again, it offers little to help the Committee.

The American Council on Education uses a classification similar to the Office of Education break-down:

1. Two but less than four years beyond the 12th grade.
2. Bachelor's and/or first professional degree.
3. Master's or second professional degree.

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2. U. S. National Center for Educational Statistics. Fall Enrollment in Higher Education, 1970; Supplementary Information, Institutional Data. (Washington, U. S. Government Printing Office, 1971), p. 78.

4. Ph.D. or equivalent.[3]

To all intents and purposes this classification is the same as that of the O.E. and suffers equally serious drawbacks as a basis for standards application.

The Office of Education has recognized that such categories as it has been employing have become too broad for meaningful use and distinctions are increasingly difficult to make. In recognition of these problems the Federal Interagency Committee on Education (FICE) has adopted a new classification code designed to correct the deficiencies of the old systems. Nine categories are used in the new method with appropriate criteria for inclusion:

1. D E Institution with Complex Program, Doctoral Emphasis.

   Criteria: during each of the three immediately preceeding years:

   a. 100 or more doctorate degrees granted, i.e., Ph.D., Ed.D., and other degrees similarly classified in the Earned Degrees portion of the Higher Education General Information Survey; first professional doctorates (e.g., J.D.) are not to be counted.

   b. Master's plus doctorate degrees (as defined above) must account for at least 20% of all degrees granted at the baccalaureate or higher levels (i.e., master's plus doctorates, divided by the total of bachelor's master's doctorates, and just professional degrees, must be 20% or greater.

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3. American Council on Education. A Fact Book on Higher Education, 1st issue, 1972. (Washington, The Council, 1972).

c. At least two accredited professional programs from among the following lists. One program must be from Group I, and the second may be from Group I or II.

Accreditation Group I	Accreditation Group II
Law	Library Work
Dentistry	Architecture
Medicine	Social Work
Theology	Speech and/or Audiology
Osteopathy	Psychology
Optometry	Business
Podiatry	Pharmacy
Veterinary Medicine	

2. R G Institution with Complex Program, Range of Post-Baccalaureate Emphasis.

Criteria: to be included in this category, an institution must satisfy any two of the three following criteria during each of the immediately preceeding three years. Any combination may be counted any year.

a. 20 or more doctorate degrees.

b. Master's plus doctorates must account for at least 20% of all baccalaureate or higher degrees.

c. At least two accredited professional programs from either Group I or Group II lists.

3. C P Institution with Complex and Professional Program.

Criteria: two of the following three criteria must be satisfied in each of the three preceding years.

a. Five or more doctorate degrees.

b. Master's plus doctorate account for at least 10% of all

baccalaureate or higher degrees.

c. At least one accredited professional program from the list of accreditations.

4. P O Institutions with Chiefly Post-Baccalaureate Program.

Criteria: must be made up of institutions whose programs are primarily at the post-baccalaureate level. Specifically, if at least 80% of the institutions bachelor's and higher degrees are at the master's, doctor's or first-professional level (i.e., less than 20% are at the bachelor's level) it is assigned here.

5. V S Institution with Varied Programs, Some Post-Baccalaureate.

Criteria: institutions which awarded degrees at the graduate or professional level for each of three consecutive years, but which did not meet the criteria for categories DE, RG, CP, or PO, are classified here.

6. U B Institutions with an Undergraduate Program.

Criteria: institutions that awarded baccalaureate degrees in each of the preceding three years, but awarded no post-baccalaureate degrees in at least one of those three preceding years, qualify in this category U B.

7. T A Institution with a Two-Year Program, Academic Emphasis.

Criteria: a two-year program of college-level studies with no baccalaureate degrees awarded in one of the preceding three years, and with 60% or more of its degrees or other formal recognitions of completion categorized as being in work wholly or chiefly

creditable toward a bachelor's degree.

8. T V Institution with a Two-Year Program, Vocational Emphasis. Criteria: two-year program of college-level studies, with no baccalaureate degrees awarded in one of the preceding three years, with 60% of its degrees or other formal recognition of completion categorized as in work wholly or chiefly creditable toward a bachelor's degree.[4]

A complex system, certainly, especially when compared with the previous schemes, but one infinitely more capable of delineating the variety of higher education institutions of this time. It will be noted that one effect of the system - as was its aim - was to banish the use of familiar terms such as "universities" and "colleges" which did not really explain the institutions to which they were attached. The further and vexatious problem of prestige, real or imagined, caused by the use of these terms is obviated, as is the possibility of inviting invidious comparisons.

It is clear that certain of the categories will be of no use to the Committee, particularly those at the outer range of the scheme, but there are some classes that will be useful.

Lastly, I wish to call your attention to the classification work done

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4. "Proposed Classification of Institutions of Higher Education for Federal Statistical and Other Analytical Purposes." Manuscript from Theodore H. Drews, Chief, Higher Education Statistical Branch, U. S. Office of Education, forwarded by Frank L. Schick, Chief, Library Surveys Branch, National Center for Educational Statistics. The new code was apparently adopted for use on August 20, 1973.

for several years by the Carnegie Commission on Higher Education in developing a system that would be of more value for purposes of analysis than existing classifications. The Commission has sought to identify categories of colleges and universities that would be relatively homogeneous with respect to the functions of the institutions as well as with characteristics of students and faculty members. Although the classification has been used satisfactorily in earlier forms by the Commission in its published reports, the scheme has not heretofore been available in published form. It has recently been felt desirable to publish it with its latest revisions. It is now in press and will be published in mid-November, 1973. A resume' of the classification follows in all its glory of 18 categories.

1. Doctoral-Granting Institutions.

1.1 Research Universities I. The 50 leading universities in terms of federal financial support of academic science in at least two of the three academic years, 1968/69, 1969/70, and 1970/71, provided they awarded at least 50 Ph.D.s (plus M.D.s if a medical school was on the same campus) in 1969/70.

1.2 Research Universities II. The 100 leading institutions in terms of federal financial support in at least two of the above three years, and awarded at least 50 Ph.D.s (plus M.D.s) or they were among the leading 50 institutions in terms of the total number of Ph.D.s (plus M.D.s) awarded during the year from 1960/61 to 1969/70.

1.3 Doctoral-Granting Universities I. These institutions awarded 40 or more Ph.D.s in 1969/70 (plus M.D.s) or received at least $3 million in

in total federal support in either 1969/70 or 1970/71.

1.4 Doctoral-Granting Universities II. Awarded at least 10 Ph.D.s in 1969/70.

2. Comprehensive Universities and Colleges.

2.1 Comprehensive Universities and Colleges I. Includes all institutions that offered a liberal arts program as well as several other programs, such as engineering and business administration. Many of them offered master's degrees, but all lacked or had an extremely limited doctoral program. All institutions in this group had at least two professional or occupational programs and enrolled at least 2,000 students in 1970.

2.2 Comprehensive Universities and Colleges II. Includes state colleges and some private colleges that offered a liberal arts program and at least one professional or occupational program such as teacher training or nursing. Many of the institutions in this group are former teachers colleges that have recently broadened their programs to include a liberal arts curriculum. Private institutions with less than 1,500 students and public institutions with fewer than 1,000 students in 1970 were not included.

3. Liberal Arts Colleges

3.1 Liberal Arts Colleges I. These colleges scored 5 or above on Astin's selectivity index[5] or they were included among the 200 leading baccalaureate-granting institutions in terms of numbers of their graduates

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5. Based on National Merit Scholarship Qualifying Test Scores for all students who took the test in 1964, classified according to the college of their first choice. See Appendix C of Alexander W. Astin, Predicting Academic Performance in College. (New York, Free Press, 1971).

receiving Ph.D.s at 40 leading doctoral-granting institutions fro
1966.

3.2 Liberal Arts Colleges II. Includes all liberal arts col
that did not meet the criteria for inclusion in the first group o
arts colleges.

4. Two-Year Colleges and Institutes

5. Professional Schools and Other Specialized Institutions

5.1 Theological Seminaries, Bible Colleges, and Other Instit
Offering Degrees in Religion.

5.2 Medical Schools and Medical Centers.

5.3 Other Health Professional Schools.

5.4 Schools of Engineering and Technology. Technical Instit
included only if they award a bachelor's degree and if their progr
limited exclusively or almost exclusively to business curriculum.

5.5 Schools of Business and Management. Included only if th
a bachelor's or higher degree and if their programs are limited ex
or almost exclusively to business curriculum.

5.6 Schools of Art, Music, and Design.

5.7 School of Law.

5.8 Teachers Colleges.

5.9 Other Specialized Institutions. Includes graduate cente
maritime academies, military institutes (lacking a liberal arts cu
and miscellaneous.

Note: Extension divisions of universities and campuses offering o

(CARNEGIE COMMISSION TYPOLOGY)

TABLE 1 — Enrollment in institutions of higher education and number of institutions, by type of institution and control, United States, 1970

Type of institution	Enrollment					Number of institutions				
	Public	Private	Total	Percent public	Percent of total	Public	Private	Total	Percent public	Percent of total
Total*	6,350.0	2,150.0	8,500.0	74.2	100.0	1,313	1,514	2,827	46.4	100.0
Doctoral-Granting Institutions	2,012.9	665.0	2,677.9	75.2	31.5	108	65	173	62.4	6.1
Research universities I	846.0	254.3	1,100.3	76.9	12.9	30	22	52	57.7	1.8
Research universities II	498.9	112.0	610.9	81.7	7.2	27	13	40	67.5	1.4
Doctoral-granting universities I	421.1	220.4	641.5	65.6	7.6	34	19	53	64.2	1.9
Doctoral-granting universities II	246.9	78.3	325.2	75.9	3.8	17	11	28	60.7	1.0
Comprehensive universities and colleges	1,978.7	522.7	2,501.4	79.1	29.4	308	145	453	68.0	16.0
Comprehensive univ/col I	1,666.1	433.2	2,099.3	79.4	24.7	223	98	321	69.5	11.4
Comprehensive univ/col II	312.6	89.5	402.1	77.7	4.7	85	47	132	64.4	4.7
Liberal arts colleges	38.5	647.4	685.9	5.6	8.1	28	691	719	3.9	25.5
Liberal arts colleges I	5.9	180.0	185.9	3.2	2.2	2	144	146	1.4	5.2
Liberal arts colleges II	32.6	467.4	500.0	6.5	5.9	26	547	573	4.5	20.3
Two-year institutions	2,214.0	133.8	2,347.8	94.3	27.6	805	256	1,061	75.9	37.5
Specialized institutions	106.5	180.3	286.8	37.1	3.4	64	357	421	15.2	14.9

*Excludes extension enrollment; items may not add to subtotals because of rounding; grand totals of enrollment have been rounded to the nearest 50,000.

extension programs are not included.[6]

Data on enrollment and the number of institutions in each category are provided on the table following.

It would appear that use of four of the Carnegie Commission's categories as given above offers an acceptable platform for the creation of college library standards. The groups that fall within our immediate area of interest are:

2.1 Comprehensive Universities I.

2.2 Comprehensive Universities II.

3.1 Liberal Arts Colleges I.

3.2 Liberal Arts Colleges II.

The categories as given are definitive in the sense that they differentiate boldly among the almost dizzying variety of colleges endemic to the scene of American higher education. The distinctions made in the Carnegie Commission classification are sufficiently comprehensive and precise to form a valid and indeed imaginative framework for our purposes.

The Carnegie Commission classification has been modified by the Management Division of the Academy for Educational Development in its November 1973 publication, The Campus Resources of Higher Education in the United States of America: a Taxonomy of Types and a Geographical Distribution,

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6. Carnegie Commission on Higher Education. A Classification of Institutions of Higher Education; a Technical Report of the Carnegie Commission on Higher Education. Berkeley, The Commission (to be published November 1973).

compiled by Judith T. Irwin.[7] A summary follows of the taxonomy.

1.0 Doctoral-Granting Universities.

1.1 Leading Research Universities.

The universities which awarded over fifty Ph.D degrees in 1970-71 and which received over ten million dollars in federal government support of academic science in 1970-71.

1.2 Other Research Universities.

The Universities which awarded over thirty Ph.D. degrees in 1970-71 and which received over five million dollars in federal government support of academic science in 1970-71.

1.3 Other Doctoral-Granting Universities.

All other universities which awarded any doctoral degrees in 1969-70 or 1970-71.

2.0 Comprehensive Colleges and Universities.

Institutions which may have doctoral programs (although no Ph.D's were awarded in 1969-71) and which had an enrollment of more than 3,500 students.

3.0 General Baccalaureate Colleges.

Institutions which may award the master's degree but have enrollments under 3,500 students.

4.0 Two-year Colleges.

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7. Irwin, Judith T., comp. The Campus Resources of Higher Education in the United States of America: a Taxonomy of Types and a Geographical Distribution. Washington, D.C., Management Division, Academy for Educational Development, 1973.

Community Colleges, Technical Institutes, university and college branches, and other campuses offering less than a baccalaureate program.

5.0 Separate specialized Professional Schools

5.1 Bible Colleges and Religious Seminaries

5.2 Medical Schools

5.3 Other Health Professions

5.4 Schools of Engineering and Technology

5.5 Schools of Business

5.6 Schools of Music, Art, Design

5.7 Schools of Law

5.8 Teachers Colleges

5.9 Other Specialized Schools

(Includes graduate centers, military academies, and miscellaneous kinds of institutions)

The principal changes made by the Academy in its taxonomy are, a) reduction in categories of doctoral-granting institutions from the Carnegie Commission groups of four to three; b) the reduction from two to one in the Comprehensive Colleges and Universities class; and c) grouping the Carnegie classes of Liberal Arts Colleges I and II into a single group known as General Baccalaureate Colleges. It is significant that the Carnegie classification in the two latter groupings - "b" and "c" - are based primarily on programs and to a much slighter degree upon student population, while the Academy criteria are based principally upon population and to a smaller extent on program. The critical point, as seen by the Academy, is the 3,500 number in population, those

institutions with more being classed as Comprehensive Colleges and Universities, while those with fewer are classed as General Baccalaureate Colleges. Both groups, it is understood, may award the master's degree.

The Academy, as did the Carnegie Commission in its publication, has applied its classification to 2,945 institutions, and has listed them by categories, by states, and by control, either public or private. A tentative gesture at subdivision of the Baccalaureate Colleges was made by starring the names of those colleges included in the selectivity index as reported by Cass and Birnbaum in their work, Comparative Guide to American Colleges.[8]

It is never made quite clear by Ms. Irwin, compiler of The Campus Resources . . . why the Carnegie Taxonomy is, to quote her phrase, ". . . unuseable by others." It is possible, and indeed probable, that its use in the construction of library standards was not foreseen. This is not said to fault the Academy publication and its compiler, but the fact remains that the distinctions drawn among institutions of higher education by their programs and by their objectives appear to have greater validity and application, as is true in the Carnegie Taxonomy, than does student enrollment as the sole criterion.

The Cass and Birnbaum list of colleges based on the authors' selectivity index deserves some words of explanation. The index categorizes the several hundred colleges for which objective data are available as regards admissions policies as:

1. Among the most selective in the country
2. Highly selective

8.Cass, James, and Birnbaum, Max: Comparative Guide to American Colleges. 5th ed. New York, Harper & Row, 1973. p. 762-766.

3. Very selective (+)

4. Very selective

5. Selective

These categories are based upon statistical and other factual information: percentage of applicants accepted by the college; average test scores of recent freshmen classes; ranking of recent freshmen in their high school classes; and other related data that measure the scholastic potential of the student body. Among the test scores used are the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board, and the American College Test (ACT) of the American College Testing Program. The selectivity index is seen as providing a guide to the academic quality of a college student body. It does not, and was not intended to, take into account such factors as cultural differences, variations in educational background, and native intelligence or ability.

What is of interest is that the correlation between the selectivity index and the Carnegie Commission Liberal Arts Colleges I group is extremely high - more than 80 per cent. The correlation between those colleges not appearing in the selectivity index and those listed in the Carnegie Liberal Arts Colleges II is, if not quite so overwhelming, also quite high. The implications of these facts insofar as college libraries are concerned are set out by Mr. David Perkins in an accompanying paper relating statistically his findings.